

NEW PSEUDOSCORPIONS OF THE GENERA *AMERICHERNES* MUCHMORE AND *CORDYLOCHERNES* BEIER FROM AUSTRALIA (PSEUDOSCORPIONIDA: CHERNETIDAE)

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**Abstract**

Harvey, M.S., 1990. New pseudoscorpions of the genera *Americhernes* Muchmore and *Cordylorchernes* Beier from Australia (Pseudoscorpionida: Chernetidae). *Memoirs of the Museum of Victoria* 50(2): 325-336.

Six new Australian chernetids, *Americhernes muchmorei*, *A. orestes*, *A. mahnerti*, *A. paluma* (all from Queensland), *A. nevoissi* (Victoria) and *Cordylorchernes dingo* (Western Australia), are described. *Lamprochernes kanaka* Chamberlin and *L. samoanus* Chamberlin are transferred to the genus *Americhernes*. A key to the Australian species of *Americhernes* is presented.

**Introduction**

The Chernetidae is by far the largest pseudoscorpion family with over 500 named species. Although only 20 species have been described to date from Australia (excluding the island territories, Lord Howe Island and Norfolk Island) (Harvey, 1985), many undescribed species are represented in museum collections (Harvey, unpublished observations). This paper deals with six unusual new species that represent the first known records of the genera *Americhernes* Muchmore and *Cordylorchernes* Beier from Australia.

Specimens are lodged in the following institutions: Australian National Insect Collection, CSIRO, Canberra (ANIC), Museum of Victoria, Melbourne (NMV), Queensland Museum, Brisbane (QM), and Staatliches Museum für Naturkunde, Stuttgart (SMNS). Many specimens are mounted on microscope slides in Euparal.

**Chernetidae**

***Americhernes* Muchmore**

*Americhernes* Muchmore, 1976: 151. (Type species *Chelifer oblongus* Say, 1821, by original designation.)

*Diagnosis.* Leg IV with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 medially and 1 distally; and 1 sub-proximally on tarsus. Trichobothrium *it* farther from finger tip than the distance between *isb* and *ist*. Females with spermathecae consisting of 2 separate curved tubes, terminating in cylindrical sacs. Carapace with 1 furrow.

*Remarks.* Although the species described below are the first reported species of *Americhernes* outside of the Americas, two Pacific species previously described in the genus *Lamprochernes* Tömösváry, *L. kanaka* Chamberlin (1939) (Marquesas Islands) and *L. samoanus* Chamberlin (1938) (Samoa), appear to belong to this genus: *Americhernes kanaka* (Chamberlin), comb. nov., *A. samoanus* (Chamberlin), comb. nov.

Each of the species described below is currently known from only single specimens, despite the large number of chernetids that I have examined from all major Australian collections. The known Australian species of the genus may be distinguished with the following key.

**Key to Australian species of *Americhernes***

- 1 Cheliceral hand with 5 setae (*sbs* present) ..... 2
- Cheliceral hand with 4 setae (*sbs* absent) ..... 4
- 2 Pedipalpal tibia smooth ..... 3
- Pedipalpal tibia finely granulate medially ..... *A. muchmorei*

- 3 Movable chelal finger approximately same length as chelal hand; pedipalpal femur smooth . . . . . *A. orestes*  
 — Movable chelal finger much shorter than chelal hand; pedipalpal femur finely granulate antero-laterally . . . . . *A. mahnerti*  
 4 Interno-lateral margin of chelal hand finely granulate . . . . . *A. neboissi*  
 — Interno-lateral margin of chelal hand smooth . . . . . *A. paluma*

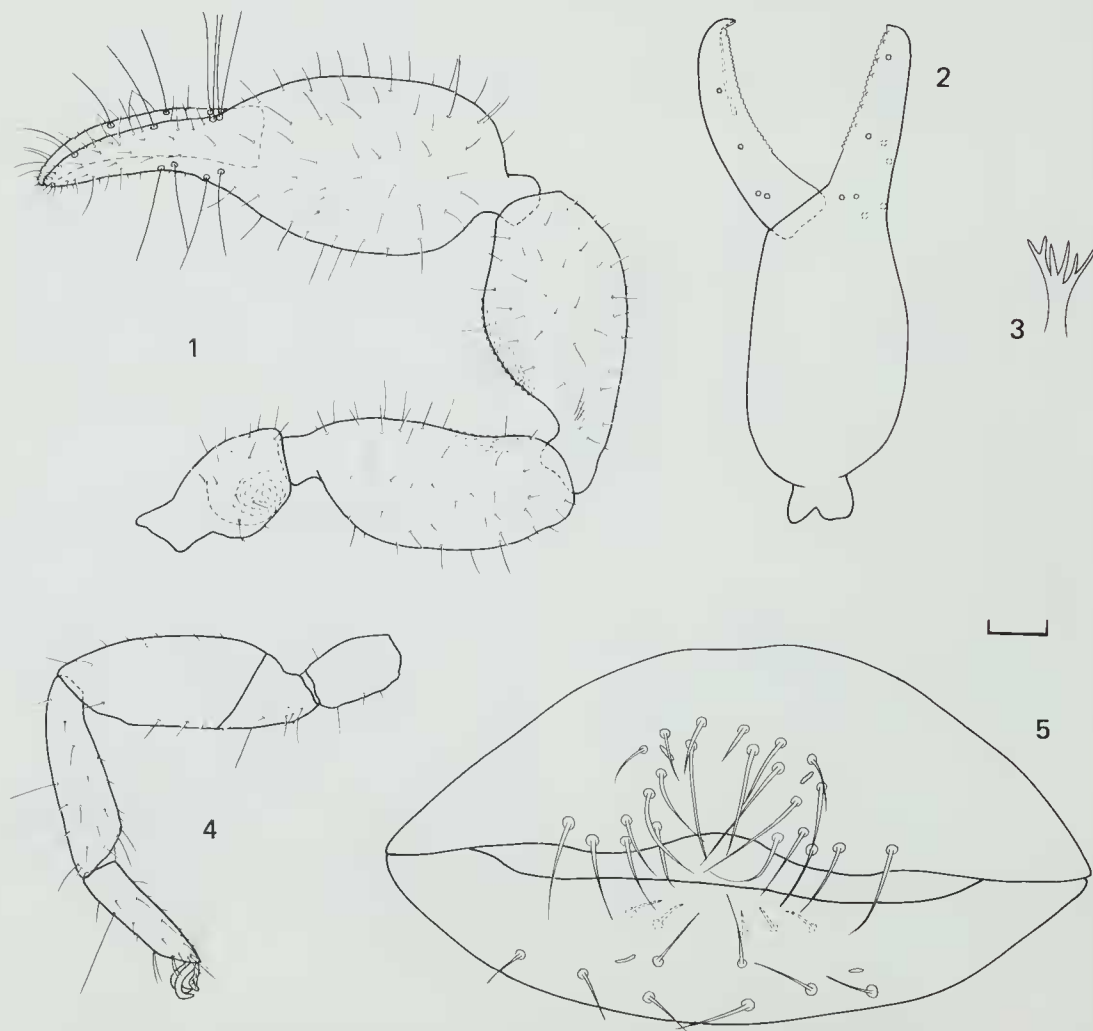
***Americhernes muchmorei* sp. nov.**

Figures 1–5

*Type material.* Holotype male, 1.5 km W of Cape Tribulation (site 3), 16°05'S, 145°28'E, Queensland, 150 m, rainforest, sieved litter, berlesate no. 458, 7 Oct 1982, Monteith, Yeates and Thompson (QM S6098).

*Diagnosis.* Cheliceral seta *sbs* present. Chela (with pedicel) 0.84 mm (♂) in length, 2.80 (♂) × longer than broad. Pedipalps with fine granulations on antero-lateral surface of femur and medial surface of tibia; chelal hand virtually smooth. Movable chelal finger with 4 trichobothria.

*Description. Male:* Colour yellow-brown, pedi-



Figures 1–5. *Americhernes muchmorei* sp. nov. Holotype male: fig. 1, right pedipalp; fig. 2, left chela; fig. 3, galea; fig. 4, left leg IV; fig. 5, genital opercula. Scale line = 0.1 mm (figs 1, 2, 4), 0.025 mm (figs 3, 5).

palps and carapace slightly darker. Derm generally smooth and glossy, that of pedipalps with fine granulations on postero-dorsal surface of trochanter, antero-lateral surface of femur, and medial surface of tibia; chela virtually smooth, with 5–6 small granulations. Pleural membrane longitudinally striate. Pedipalps (Fig. 1): trochanter with dorsal protuberance, 1.88 ×, femur distinctly pedicellate, 2.45 ×, tibia 2.17 ×, chela (with pedicel) 2.80 ×, chela (without pedicel) 2.60 ×, hand 1.47 × longer than broad. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 2); *it* adjacent to *ist*, *est* opposite *it*. Venom apparatus present in movable finger with nodus ramosus midway between *st* and *t*. Fixed finger with 27 marginal teeth, plus 7 external and 3 internal accessory teeth; movable finger with 33 marginal teeth, plus 2 external and 2 internal accessory teeth. Several sense spots present basally on both faces of fixed finger. Chelicera with 5 setae on hand, *es*, *sbs* and *bs* terminally denticulate; serrula exterior with 16 lamellae; galea (Fig. 3) with several rami. Carapace with 7 setae on posterior margin, 1.22 × longer than broad; 1 pair of eye spots present; single, median transverse furrow present. Tergites III–IX imperfectly divided; sternites IV–VIII divided, sternite IX imperfectly divided. Tergal chaetotaxy: 10: 10: 12: 11: 14: 12: 13: 13: 14: 14: 10: 2. Sternal chaetotaxy: 23: (3)8[5](3): (1)8(1): 17: 16: 15: 16: 15: 13: 8: 2. Tergite XI and sternite XI with several tactile setae. Genital opercula (Fig. 5) with many large setae; anterior operculum with 1 pair of slit sensilla. Genitalia not unusual. Leg IV (Fig. 4): femur 2.81 × longer than broad; with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 sub-medially and 1 distally; and 1 sub-proximally on tarsus, TS = 0.33. All tarsi with a proximal slit sensillum. Claws simple.

Dimensions (mm): body length 2.7. Pedipalps: trochanter 0.30/0.16, femur 0.54/0.22, tibia 0.52/0.24, chela (with pedicel) 0.84/0.30, chela (without pedicel) 0.78, movable finger length 0.38, hand length 0.44. Chelicera 0.20/?, movable finger length 0.14. Carapace 0.56/0.46. Leg I: entire femur 0.34/0.12, tibia 0.24/0.08, tarsus 0.19/0.05. Leg IV: entire femur 0.45/0.16, tibia 0.35/0.10, tarsus 0.24/0.06, distance of tarsal tactile seta from proximal margin 0.08.

*Etymology.* This species is named for Dr W.B. Muchmore who described the genus *Americhernes*.

*Remarks.* *Americhernes muchmorei* shares with four other species of the genus the following

combination of characters: cheliceral seta *sbs* present, chelal hand smooth or virtually so, and pedipalpal femur and tibia partially granulate. It may be distinguished as follows: from *A. puertoricensis* Muchmore by its larger size [pedipalpal femur length of *A. muchmorei* 0.54 mm (♂), of *A. puertoricensis* 0.35–0.38 mm (♀)]; from *A. bethaniae* Mahnert by its smaller size [pedipalpal femur length of *A. bethaniae* 0.61–0.64 mm (♂), 0.68–0.75 mm (♀)]; and from *A. andinus* (Beier) and *A. perproximus* (Beier) in possessing a much stouter chelal hand [hand ratio of *A. andinus* 1.8 × (♀), of *A. perproximus* 1.7–1.8 ×, of *A. muchmorei* 1.47 × (♂)].

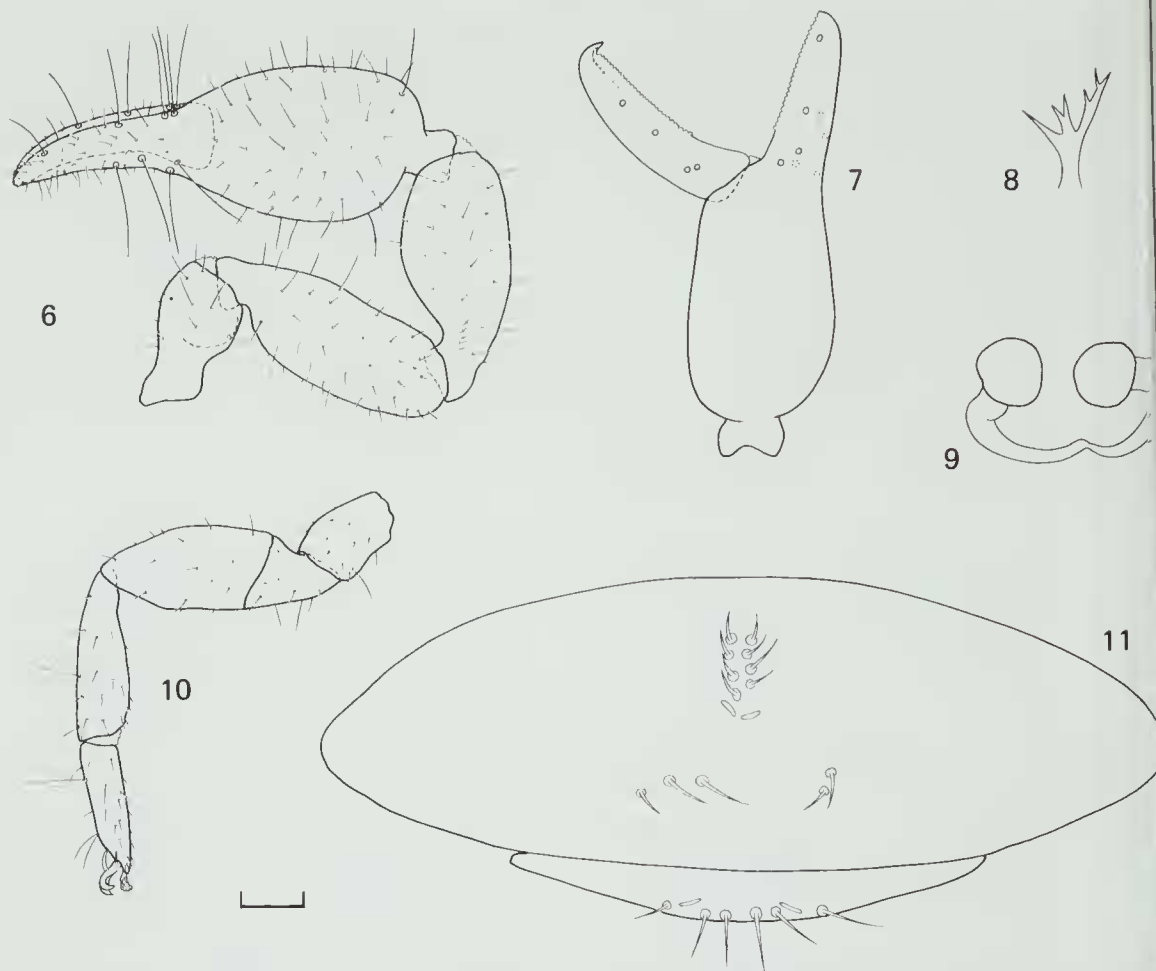
#### *Americhernes orestes* sp. nov.

##### Figures 6–11

*Type material.* Holotype female, Thornton Peak via Daintree, Queensland, 1000–1300 m, 20–22 Sep 1981, G.B. Monteith and D.C. (QM S6099).

*Diagnosis.* Cheliceral seta *sbs* present. Chela (with pedicel) 0.70 mm (♀) in length, 2.92 (♀) × longer than broad. Pedipalps smooth. Movable chelal finger with 4 trichobothria.

*Description. Female.* Colour yellow-brown, pedipalps and carapace slightly darker. Derm generally smooth and glossy, that of pedipalps smooth. Pleural membrane longitudinally striate. Pedipalps (Fig. 6): trochanter with dorsal protuberance, 1.92 ×, femur distinctly pedicellate, 2.42 ×, tibia 2.35 ×, chela (with pedicel) 2.92 ×, chela (without pedicel) 2.75 ×, hand 1.42 × longer than broad. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 7); *it* adjacent to *ist*, *est* opposite *it*. Venom apparatus present in movable finger with nodus ramosus midway between *st* and *t*. Fixed finger with 25 marginal teeth, plus 3 external and 1 internal accessory teeth; movable finger with 30 marginal teeth, plus 4 external and 1 internal accessory teeth. Several sense spots present basally on both faces of fixed finger. Chelicera with 5 setae on hand, *es*, *sbs* and *bs* terminally denticulate; serrula exterior with 16 lamellae; galea (Fig. 8) with several rami. Carapace with 8 setae on posterior margin, 0.98 × longer than broad; 1 pair of eye spots present; single, median transverse furrow present. Tergites II–X and sternites IV–IX imperfectly divided. Tergal chaetotaxy: 8: 10: 11: 16: 14: 17: 17: 16: 16: 10: 15: 2. Sternal chaetotaxy: 13: (3)7(3): (1)6(1): 15: 15: 17: 19: 18: 16: 11: 2. Tergites X–XI and sternite XI with several tactile setae. Genital opercula (Fig. 11) with few large setae; 1 pair of slit



Figures 6–11. *Americhernes orestes* sp. nov. Holotype female: fig. 6, right pedipalp; fig. 7, left chela; fig. 8, galea; fig. 9, spermathecae; fig. 10, right leg IV; fig. 11, genital opercula. Scale line = 0.1 mm (figs 6, 7, 10), 0.025 mm (figs 8, 9, 11).

sensilla on anterior operculum situated close to central patch of setae. Spermathecae (Fig. 9) consisting of two elongate tubes with cylindrical terminal sacs (although Fig. 9 depicts somewhat circular terminal sacs, this is due to the spermathecae lying at an unusual angle). Leg IV (Fig. 10): femur 2.92 × longer than broad; with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 sub-medially and 1 distally; and 1 sub-proximally on tarsus, TS = 0.29. All tarsi with a proximal slit sensillum. Claws simple.

Dimensions (mm): body length 1.6. Pedipalps: trochanter 0.25/0.13, femur 0.42/0.16, tibia 0.40/0.17, chela (with pedicel) 0.70/0.24, chela (without pedicel) 0.66, movable finger length 0.33, hand length 0.34. Chelicera 0.19/0.10, movable finger length 0.15. Carapace 0.45/0.46. Leg I: entire femur 0.27/0.10, tibia

0.20/0.07, tarsus 0.18/0.05. Leg IV: entire femur 0.38/0.13, tibia 0.28/0.08, tarsus 0.21/0.04, distance of tarsal tactile seta from proximal margin 0.06.

*Etymology.* The specific epithet refers to the presence of this species on one of Queensland's tallest mountains (*orestes*, Greek, mountaineer).

*Remarks.* The only other *Americhernes* species with completely smooth pedipalpal segments are *A. chilensis* (Beier) and *A. plaumanni* (Beier), both from South America. *Americhernes orestes* is much smaller than *A. chilensis* [pedipalpal femur length of *A. orestes* 0.42 mm (♀), of *A. chilensis* 0.72 mm (♂)], and the chelal hand is more slender in *A. plaumanni* [hand ratio 1.9 × (♂), 1.7 × (♀) in *A. plaumanni*, 1.42 × (♀) in *A. orestes*].

This species is very similar to *A. mahnerti*, and may be distinguished as discussed below.

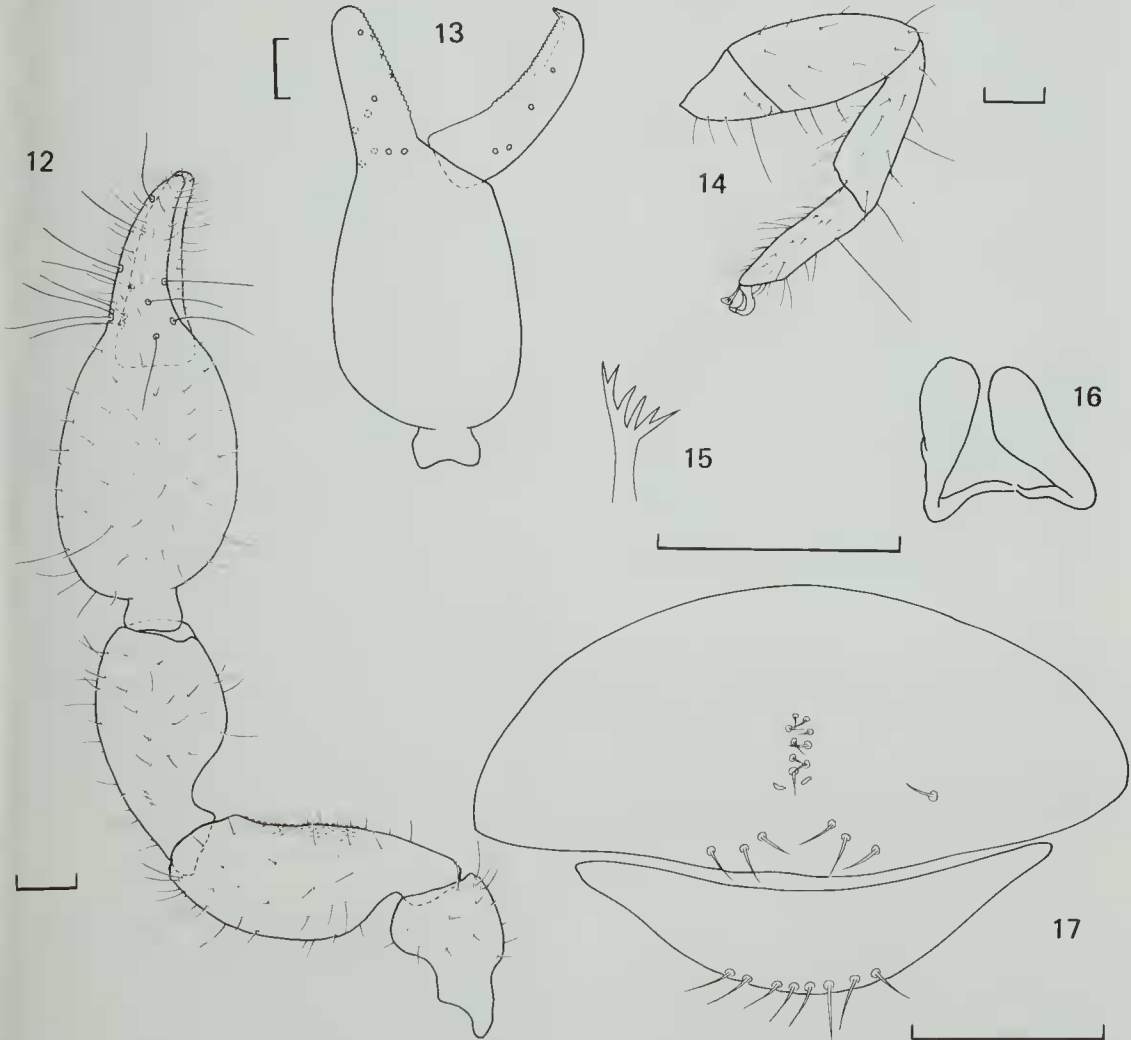
***Americhernes mahnerti* sp. nov.**

Figures 12–17

*Type material.* Holotype female, Mt Finnigan, 1050 m, 37 km S of Cooktown, Queensland, rainforest pit-fall traps, 19–22 Apr 1982, Monteith, Yeates and Cook (QM, S6100).

*Diagnosis.* Cheliceral seta *sbs* present. Chela (with pedicel) 0.75 mm (♀) in length, 2.50 (♀) × longer than broad. Pedipalpal femur granulate antero-laterally; tibia and chela smooth. Movable chelal finger with 4 trichobothria.

*Description. Female:* Colour yellow-brown, pedipalps and carapace slightly darker. Derm generally smooth and glossy, that of pedipalps smooth, except for antero-lateral margin of femur, which is granulate. Pleural membrane longitudinally striate. Pedipalps (Fig. 12): trochanter with dorsal protuberance, 1.39 ×, femur distinctly pedicellate, 2.61 ×, tibia 2.00 ×, chela (with pedicel) 2.50 ×, chela (without pedicel) 2.27 ×, hand 1.37 × longer than broad. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 13); *it* adjacent to *ist*, *est* opposite *it*. Venom apparatus present in movable finger with nodus ramosus midway between *st* and *t*. Fixed finger with 26



Figures 12–17. *Americhernes mahnerti* sp. nov. Holotype female: fig. 12, left pedipalp; fig. 13, right chela; fig. 14, left leg IV; fig. 15, galea; fig. 16, spermathecae; fig. 17, genital opercula. Scale lines = 0.1 mm.

marginal teeth, plus 4 external and 2 internal accessory teeth; movable finger with 24 marginal teeth, plus 3 external and 1 internal accessory teeth. Several sense spots present basally on both faces of fixed finger. Chelicera with 5 setae on hand, *es*, *sbs* and *bs* terminally denticulate; serrula exterior with 17 lamellae; galea (Fig. 15) with several rami. Carapace with 8 setae on posterior margin, 1.15 × longer than broad; 1 pair of eye spots present; single, median transverse furrow present. Tergites II–IX and sternites IV–IX imperfectly divided. Tergal chaetotaxy: 10: 11: 12: 13: 11: 16: 18: 16: 16: 14: 11: 2. Sternal chaetotaxy: 16: (2)8(2): (1)6(1): 13: 15: 16: 18: 16: 16: 12: 2. Tergites X–XI and sternite XI with several tactile setae. Genital opercula (Fig. 17) with no large setae; 1 pair of slit sensilla on anterior operculum situated close to central patch of setae. Spermathecae (Fig. 16) consisting of two elongate tubes with cylindrical terminal sacs. Leg IV (Fig. 14): femur 2.93 × longer than broad; with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 sub-medially and 1 distally; and 1 sub-proximally on tarsus, TS = 0.25. All tarsi with a proximal slit sensillum. Claws simple.

Dimensions (mm): body length 2.1. Pedipalps: trochanter 0.25/0.18, femur 0.47/0.18, tibia 0.42/0.21, chela (with pedicel) 0.75/0.30, chela (without pedicel) 0.68, movable finger length 0.33, hand length 0.41. Chelicera 0.20/?, movable finger length 0.13. Carapace 0.54/0.47. Leg I: entire femur 0.30/0.10, tibia 0.21/0.07, tarsus 0.23/0.05. Leg IV: entire femur 0.41/0.14, tibia 0.30/0.09, tarsus 0.24/0.07, distance of tarsal tactile seta from proximal margin 0.06.

*Etymology.* This species is named for Dr V. Mahnert, in recognition of his work on pseudoscorpions.

*Remarks.* *Americhernes mahnerti* is quite similar to *A. orestes*, but differs in the fine granulations on the antero-lateral margin of the pedipalpal femur, and in the relative lengths of the chelal hand and chelal fingers. These two species are also geographically related as they occur on mountains in northern Queensland that are only 38 km apart.

#### *Americhernes paluma* sp. nov.

Figures 18–23

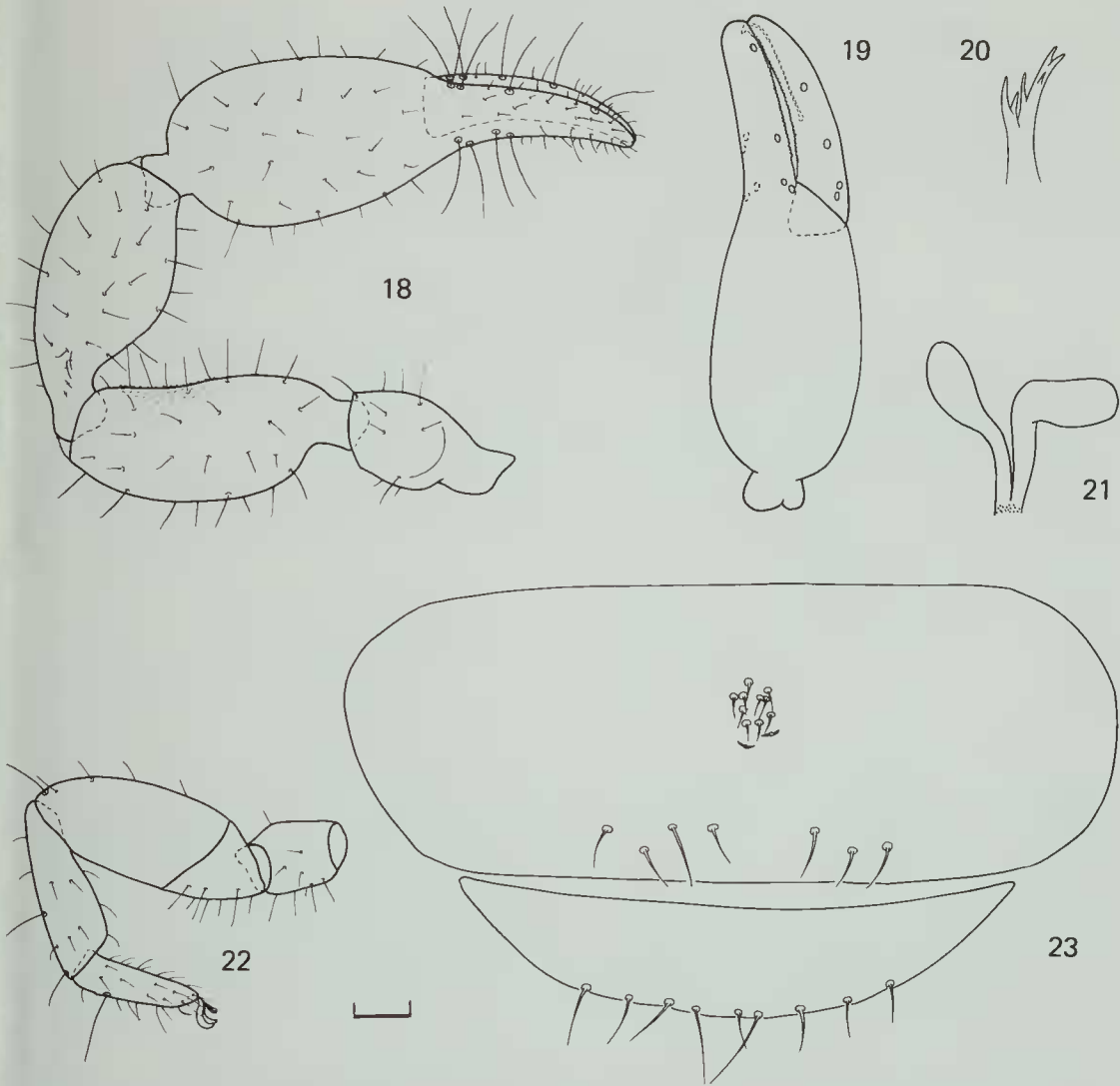
*Type material.* Holotype female, Black Friar's Parish, Paluma, Queensland, in litter or on bird, 10 Oct 1982, B. King (ANIC Type No. 10020).

*Diagnosis.* Cheliceral seta *sbs* absent. Chela (with pedicel) 0.86 mm (♀) in length, 3.07 (♀) ×

longer than broad. Pedipalps with fine granulations on antero-lateral surface of femur; medial surfaces of tibia and chelal hand smooth. Movable chelal finger with 4 trichobothria.

*Description. Female:* Colour yellow-brown, pedipalps and carapace slightly darker. Derm generally smooth and glossy, that of pedipalps with fine granulations on postero-dorsal surface of trochanter and antero-lateral surface of femur, other pedipalpal segments smooth. Pleural membrane longitudinally striate. Pedipalps (Fig. 18): trochanter with dorsal protuberance, 1.82 ×, femur distinctly pedicellate, 2.57 ×, tibia 2.13 ×, chela (with pedicel) 3.07 ×, chela (without pedicel) 2.91 ×, hand 1.51 × longer than broad. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 19); *it* adjacent to *ist*, *est* opposite *it*. Venom apparatus present in movable finger with nodus ramosus midway between *st* and *t*. Fixed finger with 31 marginal teeth, plus 5 external and 2 internal accessory teeth; movable finger with 36 marginal teeth, plus 3 external and 1 internal accessory teeth. Several sense spots present basally on external face of movable finger and on both faces of fixed finger. Chelicera with 4 setae on hand, *sbs* absent, *es* terminally denticulate, *bs* broken, but probably denticulate; serrula exterior with 17 lamellae; galea (Fig. 20) with several rami. Carapace with 6 setae on posterior margin, 1.02 × longer than broad; 1 pair of eye spots present; single, median transverse furrow present. Tergites II–IX and sternites IV–IX imperfectly divided. Tergal chaetotaxy: 11: 10: 11: 13: 14: 17: 16: 16: 16: 17: 12: 2. Sternal chaetotaxy: 17: (2)9(3): (1)7(1): 15: 16: 19: 18: 18: 19: 12: 2. Tergite XI and sternite XI with several tactile setae. Genital opercula (Fig. 23) with few large setae; 1 pair of slit sensilla on anterior operculum situated close to central patch of setae. Spermathecae (Fig. 21) consisting of two elongate tubes with cylindrical terminal sacs. Leg IV (Fig. 22): femur 2.44 × longer than broad; with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 sub-medially and 1 distally; and 1 sub-proximally on tarsus, TS = 0.30. All tarsi with a proximal slit sensillum. Claws simple.

Dimensions (mm): body length 2.5. Pedipalps: trochanter 0.31/0.17, femur 0.54/0.21, tibia 0.49/0.23, chela (with pedicel) 0.86/0.28, chela (without pedicel) 0.83, movable finger length 0.40, hand length 0.43. Chelicera 0.18/0.11, movable finger length 0.13. Carapace 0.59/0.58. Leg I: entire femur 0.31/0.11, tibia 0.23/0.08, tarsus 0.18/0.05. Leg IV: entire femur



Figures 18–23. *Americhernes paluma* sp. nov. Holotype female: fig. 18, left pedipalp; fig. 19, right chela; fig. 20, galea; fig. 21, spermathecae; fig. 22, left leg IV; fig. 23, genital opercula. Scale line = 0.1 mm (figs 18, 19, 22), 0.025 mm (figs 20, 21, 33).

0.44/0.18, tibia 0.32/0.11, tarsus 0.23/0.07, distance of tarsal tactile seta from proximal margin 0.07.

*Etymology.* The specific epithet is a noun in apposition taken from the type locality.

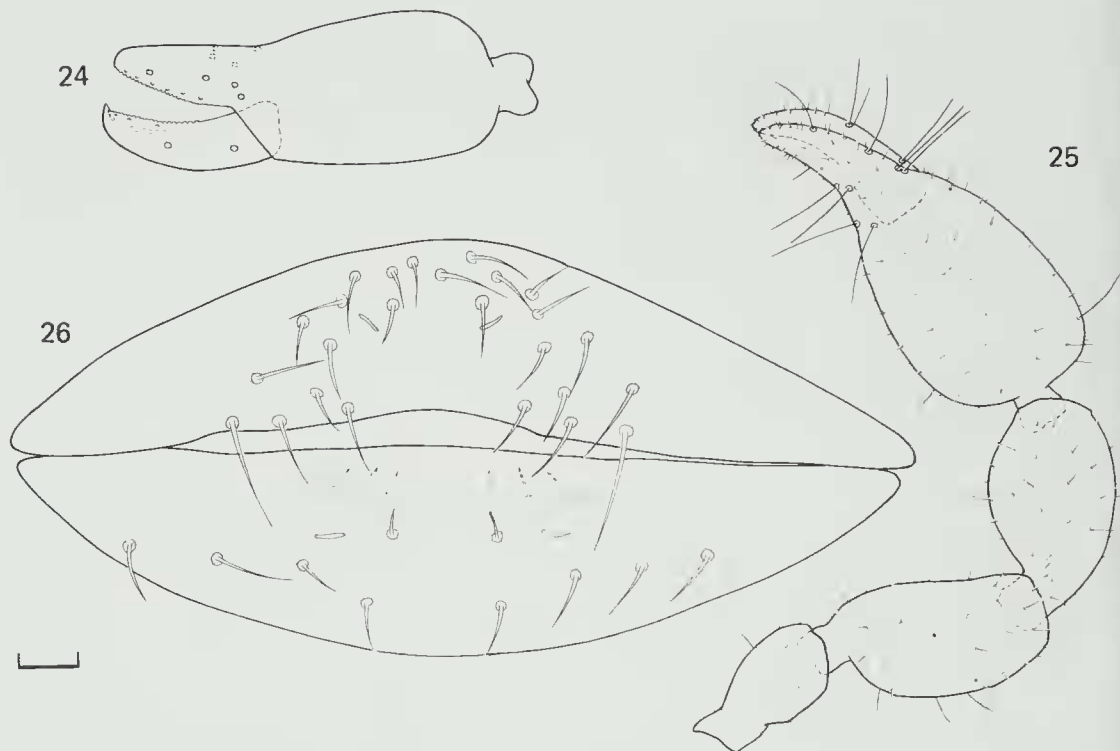
*Remarks.* Only two other species of the genus *Americhernes* lack cheliceral seta *sbs*: *A. reductus* Muchmore (from Florida, USA and Belize) and *A. nevoissi* sp. nov. They differ as follows: *A. nevoissi* differs by the finely granulate internolateral margin of the chelal hand (smooth in *A.*

*reductus* and *A. paluma*); and *A. paluma* differs from *A. reductus* by the smooth medial margin of the pedipalpal tibia (finely granulate in *A. reductus*).

***Americhernes nevoissi* sp. nov.**

Figures 24–26

*Type material.* Holotype male, west branch of King River, 10 km NE of Tolmie, Victoria, attached to leg of ♀ *Cheumatopsyche* sp. (Trichoptera: Hydropsychidae), 2 Feb 1984, A. Neboiss (NMV K252).



Figures 24–26. *Americhernes nevoissi* sp. nov. Holotype male: fig. 24, left chela; fig. 25, right pedipalp; fig. 26, genital opercula. Scale line = 0.1 mm (figs. 24, 25), 0.025 mm (fig. 26).

**Diagnosis.** Cheliceral seta *sbs* absent. Chela (with pedicel) 0.67 mm ( $\delta$ ) in length,  $2.39 \times$  longer than broad. Pedipalps with fine granulations on interno-lateral surface of chela at base of fingers; medial surfaces of femur and tibia smooth. Movable chelal finger with 2 trichobothria.

**Description. Male:** Colour yellow-brown, pedipalps and carapace slightly darker. Derm smooth and glossy, that of pedipalps with course granulations on postero-dorsal surface of trochanter and interno-lateral surface of chela at base of fingers, other pedipalpal segments smooth. Pleural membrane longitudinally striate. Pedipalps (Fig. 25): trochanter with dorsal protuberance,  $1.86 \times$ , femur distinctly pedicellate,  $2.16 \times$ , tibia  $1.86 \times$ , chela (with pedicel)  $2.39 \times$ , chela (without pedicel)  $2.29 \times$ , hand  $1.29 \times$  longer than broad. Fixed chelal finger with 8 trichobothria, movable chelal finger with 2 trichobothria (Fig. 24); *it* adjacent to *ist*, *est* opposite *it*. Venom apparatus present in movable finger with nodus ramosus proximal to *t*. Fixed finger with 25 marginal teeth, plus 2 external and 1 internal accessory teeth; movable finger

with 22 marginal teeth, plus 2 external accessory teeth. Several sense spots present basally on external face of movable finger and on both faces of fixed finger. Chelicera with 4 setae on hand, *sbs* absent, *es* and *bs* terminally denticulate; serula exterior with 15–16 lamellae; galeae broken. Carapace with 6 setae on posterior margin,  $1.04 \times$  longer than broad; 1 pair of eye spots present; single, medial transverse furrow present. Tergites III–X and sternites IV–X imperfectly divided. Tergal chaetotaxy: 8: 9: 8: 9: 10: 10: 12: 12: 13: 12: 2. Sternal chaetotaxy: 25: (3)11[6](3): (1)6(1): 13: 12: 16: 15: 17: 15: 10: 2. Tergite XI and sternite XI with several tactile setae. Genital opercula (Fig. 26) with several pairs of large setae; anterior operculum with 1 pair of slit sensillae, posterior operculum with 2 pairs of slit sensillae. Genitalia not unusual. Leg IV: femur  $2.40 \times$  longer than broad; with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 sub-medially and 1 distally; and 1 sub-proximally on tarsus,  $TS = 0.25$ . All tarsi with a proximal slit sensillum. Claws simple.

Dimensions (mm): body length 1.6. Pedipalps: trochanter 0.26/0.14, femur 0.41/0.19, tibia 0.39/0.21, chela (with pedicel) 0.67/0.28,



chela (without pedicel) 0.645, movable finger length 0.30, hand length 0.36. Chelicera 0.20/0.10, movable finger length 0.15. Carapace 0.49/0.47. Leg I: entire femur 0.25/0.10, tibia 0.18/0.07, tarsus 0.17/0.06. Leg IV: entire femur 0.36/0.15, tibia 0.26/0.09, tarsus 0.20/0.07, distance of tarsal tactile seta from proximal margin 0.05.

*Etymology.* This species is named for Arturs Neboiss, collector of the holotype.

*Remarks.* See the discussion under *Americhernes paluma* for characters which distinguish this species from others of the genus. Although the holotype of *A. neboissi* possesses only two trichobothria on the movable chelal finger, this may not be characteristic of the species; Mahnert (1979) reported extreme variation in the number of such trichobothria in *A. incertus* Mahnert from Brazil.

#### *Cordylchernes* Beier

*Cordylchernes* Beier, 1932a: 265; Beier, 1932b: 99. (Type species *Chelifer macrochelatus* Tömösváry, 1884, a junior subjective synonym of *Acarus scorpoides* Linnaeus, 1758, by original designation).

*Diagnosis.* Leg IV with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 medially and 1 distally; and 1 sub-proximally on tarsus. Trichobothrium *it* closer to finger tip than the distance between *isb* and *ist* in most species (in *C. dingo* it is farther to finger tip than the distance between *isb* and *ist*). Females with spermathecae consisting of 2 separate tubes terminating in inflated sacs. Males with medio-dorsal protuberance on pedipalpal tibia. Carapace with 1 furrow.

*Remarks.* The genus *Cordylchernes* contains eight presently recognized species from central and South America, and one species, *C. octentoctus* (Balzan), apparently from South Africa (see Vachon, 1942), but the only known specimen is probably mislabelled (W.B. Muchmore, pers. comm.). *Cordylchernes dingo* is the only species of the genus in which chelal trichobothrium *it* is situated closer to *ist* than to the tip of the fixed finger, but I do not feel that generic status is warranted until a review of those New World "*Lustrochernes*-like" chernetids with a protuberance on the pedipalpal tibia (e.g. *Cordylchernes* spp., *Odontochernes* spp.) is completed.

#### *Cordylchernes dingo* sp. nov.

Figures 27–35

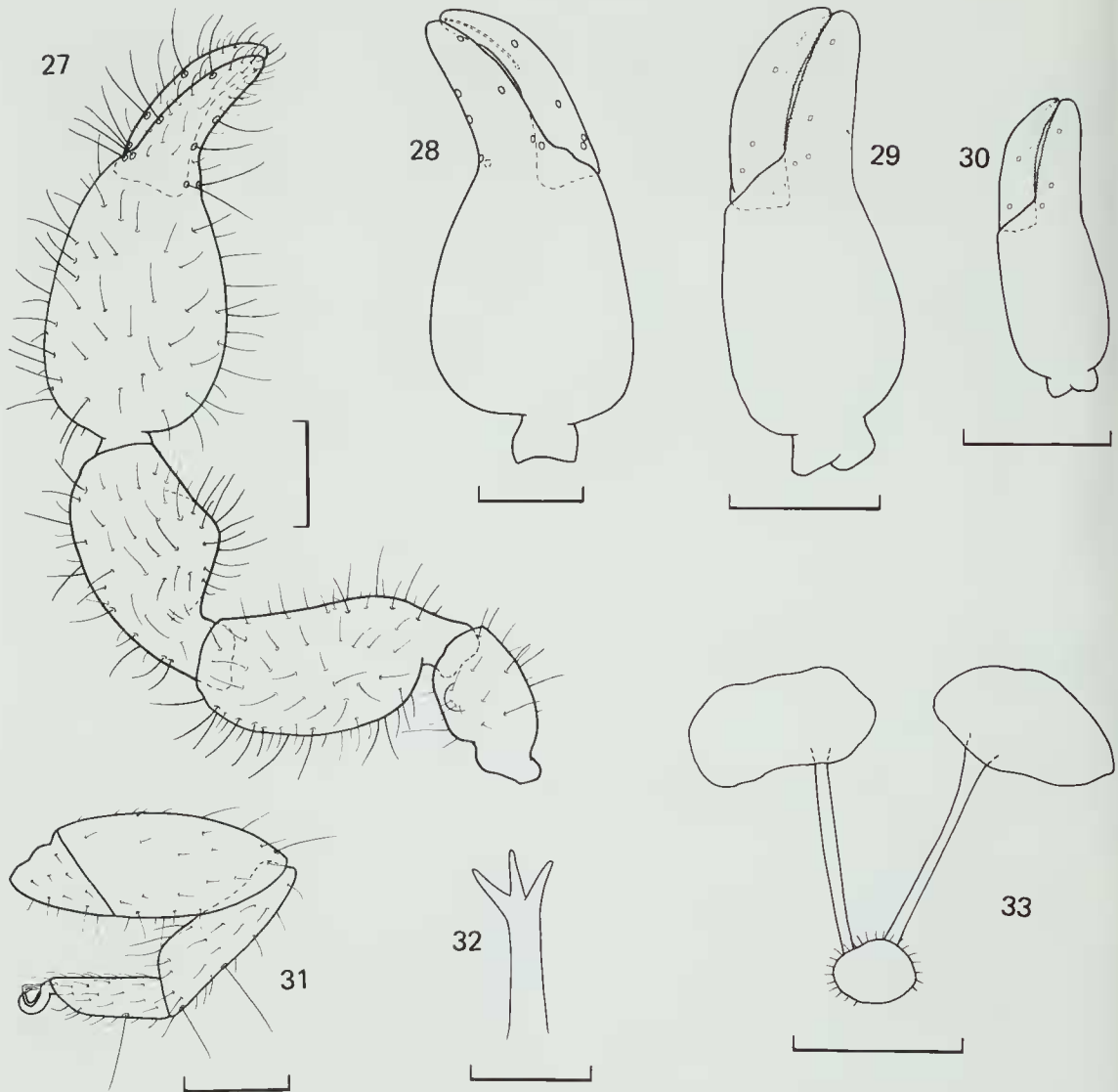
*Type material.* Holotype male, Lone Dingo, 11 km SW of Walsh Point, Admiralty Gulf, Western Australia,

14°35'S, 125°45'E, under bark of *Eucalyptus* sp., 10 May 1983, D.C.F. Rentz and J. Balderson (ANICType No. 10024).

Paratypes: 1 male, 1 female, 12 tritonymphs, 2 deutonymphs, Frog Hollow Creek, 135 km N of Halls Creek, Kimberley Plateau, Western Australia, no date, M. Bachr (SMNS 2013). 1 male, 2 tritonymphs, Dales Gorge, 70 km SE of Wittencoom, Hamersley Range, Western Australia, 30 Nov 1984, M. Bachr (SMNS 2016).

*Diagnosis.* Trichobothrium *it* closer to *ist* than to tip of fixed chelal finger.

*Description.* *Adults:* Colour generally yellow-brown, pedipalps and anterior portion of carapace dark red-brown. Derm not particularly shiny; carapace finely granulate, pedipalps with fine granulations on posterior margin of trochanter and antero-lateral surface of femur. Pleural membrane longitudinally striate. Pedipalps (Fig. 27): trochanter with dorsal protuberance, 1.39–1.63 (♂), 1.62 (♀) ×, femur abruptly pedicellate, 1.99–2.20 (♂), 2.09 (♀) ×, tibia with medio-dorsal protuberance surmounted by setae slightly longer than usual, pedicel not quite as narrow as in most other species, 1.85–1.95 (♂), 1.59 (♀) ×, chela (with pedicel) 2.42–2.45 (♂), 3.89 (♀) ×, chela (without pedicel) 2.23–2.29 (♂), 3.62 (♀) ×, hand 1.26–1.28 (♂), 1.85 (♀) × longer than broad. Fixed chelal finger with 8 trichobothria, movable chelal finger with 4 trichobothria (Fig. 28); *it* closer to *ist* than to tip of finger, *est* slightly distal to level of *it*. Venom apparatus present in movable finger with nodus ramosus slightly proximal to *t*. Fixed finger with numerous marginal teeth, plus 16 external and 4 internal accessory teeth; movable finger with numerous marginal teeth, plus 18 external and 5 internal accessory teeth. Sense spots present on both chelal fingers. Chelicera with 5 (occasionally 6) setae on hand, *sbs*, *b* and *es* terminally denticulate; serrula exterior with 28–30 (♂, ♀) lamellae; galea of male (Fig. 32) terminally trifurcate, of female with 6–7 rami, but these broken. Carapace with 14–15 (♂), 20 (♀) setae on posterior margin, 1.25–1.27 (♂), 1.14 (♀) × longer than broad; 1 pair of eye spots; single, median transverse furrow. Tergites III–X and sternites IV–IX imperfectly divided. Tergal chaetotaxy: ♂, 21: 20–23: 20–26: 31–33: 34–38: 40: 42–45: 42: 38–51: 40–42: 36: 2; ♀, 36: 32: 28: 37: 45: 54: 57: 59: 60: 56: ? : 2. Sternal chaetotaxy: ♂, 31–33: (6)14–15[9](6): (4)9–10(3): 26–31: 28–30: 34–37: 34–40: 35–42: 38–42: 24: 2; ♀, 40: (6)17(6): (3)10(4): 40: 55: 57: 60: 57: 58: ? : 2. Tergites IX–XI and sternites X–XI with several tactile setae. Genital opercula of male (Fig. 34) with several pairs of large setae; 1 pair of slit sensilla on anter-

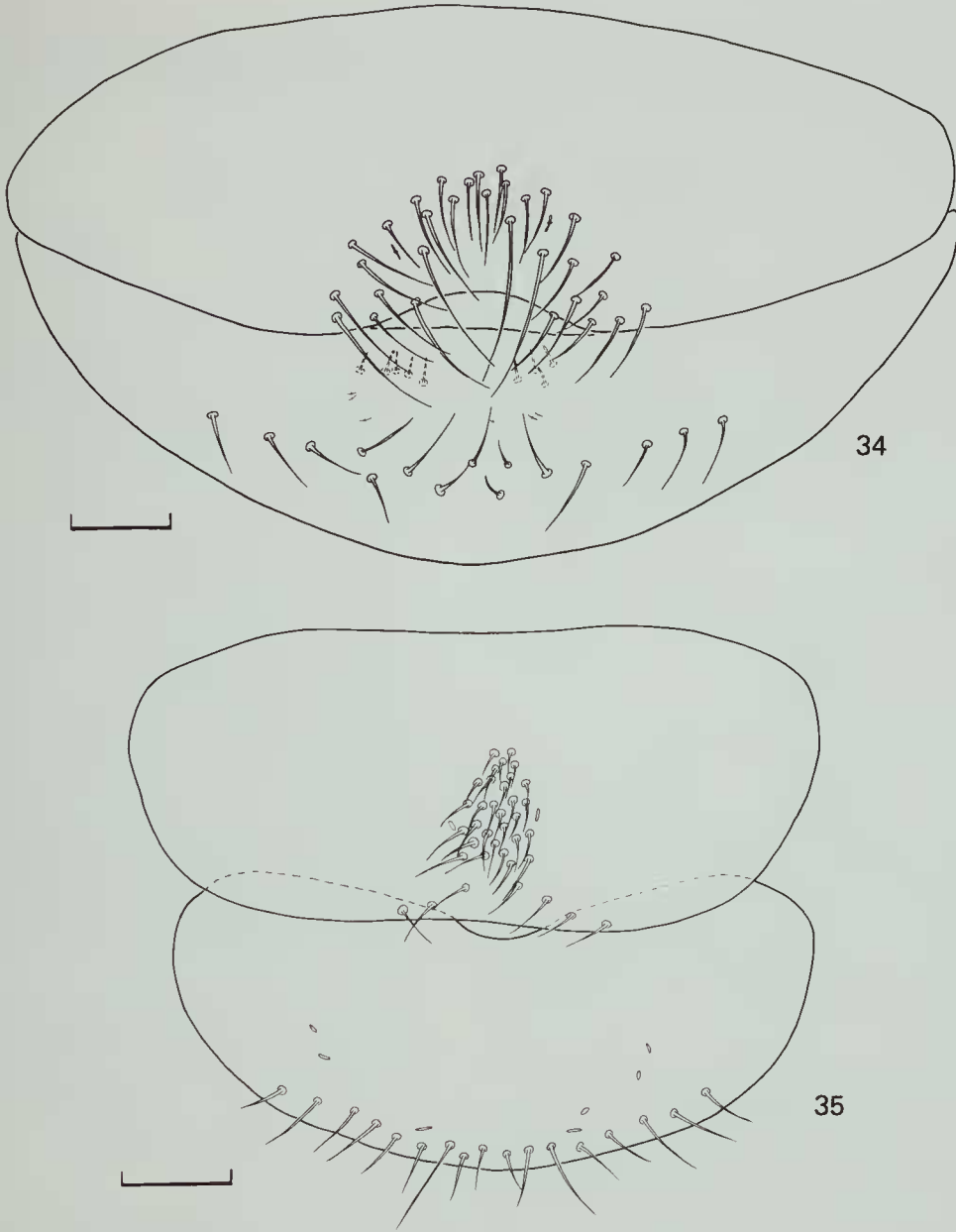


Figures 27–33. *Cordylochernes dingo* sp. nov. Holotype male unless stated otherwise: fig. 27, left pedipalp; fig. 28, right chela; fig. 29, left chela, tritonymph paratype from Frog Hollow Creek; fig. 30, left chela, deutonymph paratype from Frog Hollow Creek; fig. 31, left leg IV; fig. 32, galea; fig. 33, spermathecae, female paratype. Scale line = 0.5 mm (figs 27–31), 0.005 mm (fig. 32), 0.1 mm (fig. 33).

ior operculum, smaller sensillae present on posterior operculum; opercula of female (Fig. 35) without large setae, slit sensillae much as in male. Male genitalia not unusual; female genitalia with spermathecae (Fig. 33) consisting of 2 separate slender tubes terminating in inflated sacs. Leg IV (Fig. 31): femur 2.34–2.59 ( $\delta$ ), 2.75 ( $\varnothing$ )  $\times$  longer than broad; with 4 tactile setae: 1 distally on telofemur; 2 on tibia, 1 sub-medially and 1 distally; and 1 sub-proximally on tarsus,

TS = 0.36 ( $\delta$ ,  $\varnothing$ ). All tarsi with a proximal slit sensillum. Claws simple.

Dimensions (mm): body length 5.1–5.7 (5.5). Pedipalps: trochanter 0.76–0.80/0.49–0.55 (0.81/0.50), femur 1.37–1.41/0.61–0.69 (1.42/0.68), tibia 1.23–1.35/0.63–0.73 (1.10/0.69), chela (with pedicel) 2.07–2.35/0.84–0.97 (2.57/0.66), chela (without pedicel) 1.94–2.16 (2.39), movable finger length 0.90–1.08 (1.21), hand length 1.08–1.22 (1.22).



Figures 34–35. *Cordylochernes dingo* sp. nov. Genital opercula: fig. 34, holotype male; fig. 35, paratype female. Scale lines = 0.1 mm.

Chelicera 0.45–0.53/0.20–0.23 (0.55/0.26), movable finger length 0.36–0.42 (0.44). Carapace 1.41–1.54/1.11–1.23 (1.59/1.40). Leg I: entire femur 0.82–0.92/0.35–0.39 (0.94/0.40), tibia 0.59–0.64/0.23–0.26 (0.68/0.26), tarsus 0.44–0.47/0.15–0.16 (0.54/0.17). Leg IV: entire femur 1.27/0.49 (1.54/0.56), tibia 0.91/0.16 (1.03/0.30), tarsus 0.57/0.19 (0.66/0.22), dis-

tance of tarsal tactile seta from proximal margin 0.21 (0.24).

*Tritonymphs*: Colour paler than adults. Pedipalp: trochanter 1.63–1.65 ×, femur 2.00–2.02 ×, tibia 1.86–1.95 ×, chela (with pedicel) 2.64–2.68 ×, chela (without pedicel) 2.44–2.50 ×, hand 1.43–1.45 × longer than broad. Fixed chelal finger with 7 trichobothria, movable chelal finger

with 3 trichobothria (Fig. 29): *ist* and *sb* absent. Carapace 1.27–1.30 × longer than broad.

Dimensions (mm): Body length 5.2–5.4. Pedipalps: trochanter 0.51–0.52/0.31–0.32, femur 0.84–0.85/0.42, tibia 0.80–0.84/0.43, chela (with pedicel) 1.45–1.50/0.55–0.56, chela (without pedicel) 1.34–1.40, hand length 0.80, movable finger length 0.67. Carapace 1.08–1.09/0.83–0.86.

*Deutonymphs*: Colour paler than adults. Pedipalp: trochanter 1.70–1.73 ×, femur 2.11–2.12 ×, tibia 1.80–1.89 ×, chela (with pedicel) 2.76–2.80 ×, chela (without pedicel) 2.63 ×, hand 1.42–1.49 × longer than broad. Fixed chelal finger with 6 trichobothria, movable chelal finger with 2 trichobothria (Fig. 30): *esb*, *isb*, *st* and *sb* absent. Carapace 1.45 × longer than broad.

Dimensions (mm): Body length 3.7–3.8. Pedipalps: trochanter 0.34–0.38/0.20–0.22, femur 0.53–0.59/0.25–0.28, tibia 0.51–0.54/0.27–0.30, chela (with pedicel) 0.98–1.05/0.35–0.38, chela (without pedicel) 0.92–1.00, hand length 0.52–0.54, movable finger length 0.47–0.51. Carapace 0.77/0.53.

*Etymology*. The specific epithet is a noun in apposition taken from the type locality.

*Remarks*. *Cordylochernes dingo* has a wide distribution in north-western Australia. I have examined numerous females from northern Australia that may belong to this genus or species, but without males, their status remains uncertain.

Males of *C. dingo* differ from all other known species of the genus by the position of trichobothrium *it* which is closer to *ist* than to the tip of the finger.

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